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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,280	12/01/2003	Ian Poole	DYOUNP0234USA	3362

7590 09/20/2004

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EXAMINER

JOHNS, ANDREW W

ART UNIT	PAPER NUMBER
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2621

DATE MAILED: 09/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/726,280	Applicant(s) POOLE ET AL.	
	Examiner Andrew W. Johns	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers...

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Drawings

1. Color photographs and color drawings are acceptable only for examination purposes unless a petition filed under 37 C.F.R. § 1.84(a)(2) is granted permitting their use as acceptable
5 drawings. In the event that applicant wishes to use the drawings currently on file as acceptable drawings, a petition must be filed for acceptance of the color photographs or color drawings as acceptable drawings. Any such petition must be accompanied by the appropriate fee set forth in 37 C.F.R. § 1.17(h), three sets of color drawings or color photographs, as appropriate, and, unless already present, an amendment to include the following language as the first paragraph of
10 the brief description of the drawings section of the specification:

The patent or application file contains at least one drawing executed in color. Copies of this patent or patent application publication with color drawing(s) will be provided by the Office upon request and payment of the necessary fee.

15 Color photographs will be accepted if the conditions for accepting color drawings have been satisfied.

Specification

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any
20 errors of which applicant may become aware in the specification.

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The title should mention the distinctive feature(s) of the claimed invention.

4. The statement regarding applicant's claim for domestic priority in the first sentence of the specification fails to point out the current status of the parent application(s). Applicant is encouraged to amend this statement to include the current status of the parent application(s).

Claim Rejections - 35 U.S.C. § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-2, 21 and 25-26 are rejected under 35 U.S.C. § 102(b) as being anticipated by Merickel et al. (US 4,945,478 A).

With respect to claim 1, Merickel et al. teaches a method of setting visualization parameter boundaries for displaying an image from a 3D data set comprising a plurality of voxels (column 1, lines 7-9), each with an associated signal value, comprising selecting a volume of interest (VOI) within the 3D data set (i.e., each subimage slice; column 12, line 60); generating a histogram of signal values from the voxels within the VOI (column 12, lines 59-61; a histogram is determined for each subimage slice); applying a numerical analysis method to the histogram to determine a visualization threshold (column 12, line 67 through column 13, line 10); and setting at least one of a plurality of boundaries for a visualization parameter according to the visualization threshold (column 13, lines 12-23). In addition, Merickel et al. further teaches that the visualization parameter boundary is set at the visualization threshold (i.e., the contour of the area in the slice that meets the threshold condition; column 13, lines 21-23), as stipulated by claim 2; that the 3D data set is a medical imaging data set (column 2, lines 59-61),

as defined in claim 21; and a computer apparatus with computer readable instructions for performing the method (44 in Figure 1), as well as a computer product bearing computer readable instructions for performing the method (46 in Figure 1), as variously stipulated by claims 25 and 26. Therefore, Merickel et al. meets each of the limitations of these claims and anticipates the claimed invention.

Claim Rejections - 35 U.S.C. § 101

7. 35 U.S.C. § 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claim 25 is rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter.

Claim 25 is directed towards a computer program product bearing computer readable instructions (i.e., a computer program). A computer program is considered functional descriptive material and is only statutory when clearly defined as being embodied on a computer readable storage medium (see M.P.E.P. § 2106). Since claim 25 does not clearly define the computer instructions as being embodied in a computer readable storage medium, claim 25 is considered to be directed toward the descriptive material itself and is not considered to encompass statutory subject matter.

Double Patenting

9. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. § 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. § 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. § 101.

10. Claims 1-26 are rejected under 35 U.S.C. § 101 as claiming the same invention as that of claims 1-26 of prior U.S. Patent No. 6,658,080 to Poole et al. This is a double patenting rejection.

Each and every one of the claims of the instant application is word-for-word identical to the correspondingly numbered claim in the '080 patent to Poole et al., so that the instant claims are directed to the same invention as the claims of the patent.

Conclusion

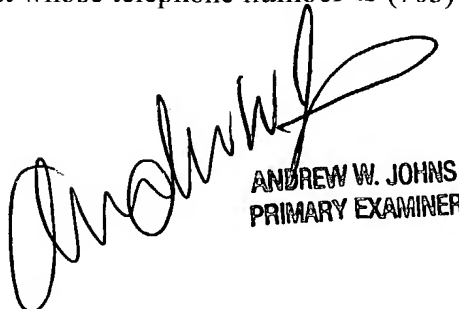
11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Simha et al. teaches volume rendering using visualization parameters. Fan et al. and Arnold each uses histograms of volumes of interest in volume rendering systems.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Johns whose telephone number is (703) 305-4788. The examiner is normally available Monday through Friday, at least during the hours of 9:00 am to 3:00 pm Eastern Time. The examiner may also be contacted by e-mail using the address: andrew.johns@uspto.gov. (Applicant is reminded of the Office policy regarding e-mail communications. See M.P.E.P. § 502.03)

If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Leo Boudreau, can be reached on (703) 305-4706. The fax phone number for this art unit is (703) 872-9306. In order to ensure prompt delivery to the examiner, all unofficial communications should be clearly labeled as "Draft" or "Unofficial."

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center Receptionist whose telephone number is (703) 305-4700.

A. Johns
13 September 2004



ANDREW W. JOHNS
PRIMARY EXAMINER